

WE CLAIM:

1. A process for producing herbicides from a fungus *Alternaria alteranata* f.sp. *lantanae* deposited as a pure culture as ITCC-4896 which comprises in steps culturing the fungus in a liquid broth, subjecting the broth to the step of filtration to separate the broth containing phytotoxins from mycelium extraction the phytotoxins from said broth to obtain the phytotoxins, 5 subjecting the phytotoxins to the step of chemical characterization.
2. A process as claimed in claim 1 wherein the pure fungus is grown fungus is growth on a known nutrient for a period of, for example, 7 days.
- 10 3. A process as claimed in claim 1 wherein discs of the inoculum comprising the culture were prepared aseptically.
4. A process as claimed in claim 3 wherein the inoculum was inoculated into a liquid medium and growth was allowed for a period of 20 to 30 days under static conditions.
- 15 5. A process as claimed in claim 3 wherein the discs having the inoculum were of 3 to 12 mm and preferably 5 to 8 mm.
6. A process as claimed in claims 1 to 5 wherein the inoculated broth after growth is subjected to the step of filtration under vacuum to separate the mycelium from the cell free filtrate.

7. A process as claimed in claim 8 wherein the pH of the cell free filtrate is adjusted to a pH 2 to 3 and concentrated to 40-60% of original volume under vacuum to produce a concentrated brown viscous mass.

5 8. A process as claimed in claim 7 wherein the brown viscous mass is subjected to repeated steps of solvent extraction to produce a solvent layer and an oily layer.

9. A process as claimed in claim 8 wherein the solvent layer containing a first active compound is evaporated under vacuum at a temperature of 30 to 35°C to produce a yellowish oily residue having phytotoxic activity, 10 subjecting said residue to chemical characterization.

10. A process as claimed in claim 8 wherein the oily layer is subjected to subsequent extraction by a solvent, such as ethylacetate to produce a solvent layer and an oily residue.

11. A process as claimed in claim 10 wherein the solvent layer containing 15 the two other active compounds with phytotoxic activity is subjected to the step of evaporation at a temperature of 30 to 35°C under vacuum to produce a residue, which is subjected to the step of chemical characterization.

12. A process as claimed in claim 8 wherein the solvent used in the step of 20 solvent extraction is selected from polar and non polar solvents, preferably being chloroform.

13. A process as claimed in claim 6 wherein the mycelium is ground and formulated as a water spray for a weedicide.